# Propagation of Crape Myrtle (*Lagerstroemia indica* L.) from in Vitro Plants Derived from Shoot Tips

**T. Yamamoto, T. Tomiyama, R. Watanabe, and Y. Shibusawa**
Minami-Kyushu University, Takanabe, Miyazaki, 884 Japan

We reported already the propagation of crape myrtle by culturing nodal explants from in vitro seedlings. However, it is more desirable for clonal propagation to obtain regenerants using an explant from a greenhouse-grown plant. From that point of view, we studied propagation of crape myrtle using shoot tips of a dwarf type of plant grown in pots. At first, donor plants were produced by culturing shoot tips on the Murashige and Skoog (MS) medium. Nodal segments and shoot tips excised from the in vitro plants were used as explants. The axillary buds were easily induced from the meristems of nodes on the MS medium without hormones. The combinations of hormones, such as benzyladenine (BA), naphthaleneacetic acid (NAA), and gibberellic acid ($GA_3$) had little promotive effect on the induction of axillary buds. The multiplication of shoots occurred through two types of organogenesis, one is branching by enhanced induction of axillary buds from the shoot and the other is formation of adventitious shoots. Benzyladenine (1 mg liter$^{-1}$) was effective for multiplication, while NAA and ($GA_3$) added to the medium containing BA had little additional effect on multiplication. The growth of shoot tips excised from the in vitro plants was better in the MS medium than in the half-strength MS medium and Woody Plant Medium. The shoots formed from the two types of explants rooted easily in the half-strength M.S. medium without NAA. After acclimatization, the regenerated plants grew normally in pots and came into flower with the same color as that of the donor plant. A scheme for micropropagation of crape myrtle based on the present experiments is shown in Fig. 1.

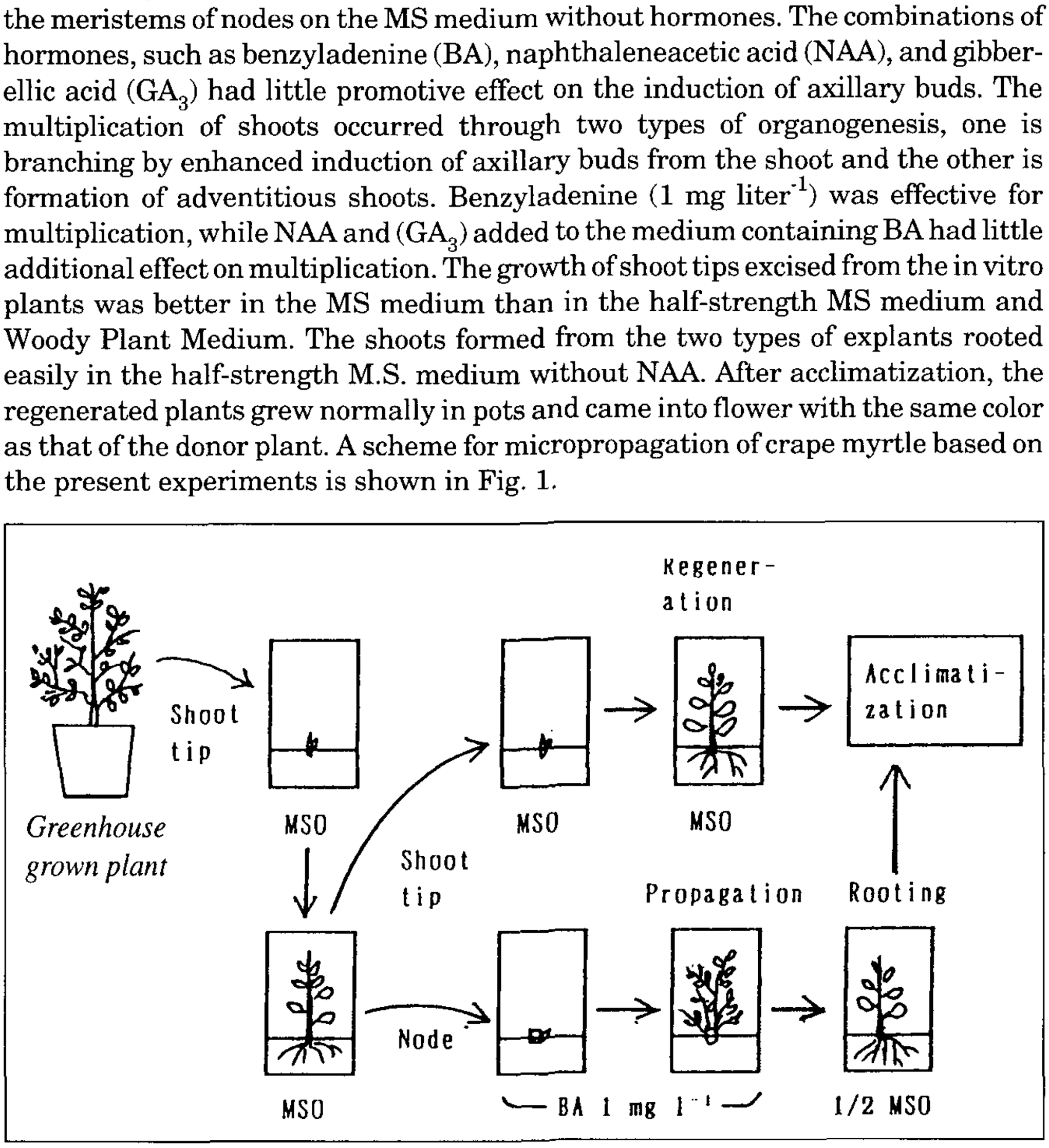


**Figure 1.** Scheme for micropropagation of crape myrtle using shoot tip explants derived from greenhouse-grown plants.